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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,550	05/26/2006	Romano Sellan	8455.015.US0000	5561
77213 7590 05/05/2009 Novak Druce + Quigg, LLP 1300 Eye Street, NW, Suite 1000 Suite 1000, West Tower Washington, DC 20005				
EXAMINER				
MCGUTHRY BANKS, TIMA MICHELE				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
05/05/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/580,550

**Applicant(s)**

SELLAN, ROMANO

**Examiner**

TIMA M. MCGUTHRY-BANKS

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-6, 8, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of Claims***

Claims 1 and 8 are currently amended, Claims 2-8 are as previously presented, Claims 9-18 are withdrawn and currently amended and Claims 19 and 20 are new.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vallomy '504 (US 6,004,504) (Vallomy '504) in view of JP 08-005248.

Vallomy '504 in view of JP '248 is applied as discussed in the office action mailed 11/18/2008. Regarding Claim 20, the amount of tapping, the amount of feeding, and amount of energization to the electrode are controlled [0002]. The metal temperature is controlled based on the gravimetry means 5 and 7 for the furnace and the feeder, respectively, and the electrode [0010 and 0013]. It would have been obvious to one of ordinary skill in the art at the time the invention was made that JP '248 reads on the limitation of slowing the speed with respect to lowering the temperature and vice versa, since a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation; therefore a *prima facie* case of obviousness exists. See MPEP § 2144.05 II B.

Claims 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vallomy '504 in view of JP '248 as applied to Claim 1 above, and further in view of Gulden, Jr. et al (US 5,099,438).

Vallomy '504 in view of JP '248 and Gulden, Jr. et al is applied as discussed in the office action mailed 11/18/2008.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vallomy '504 in view of JP '248 and Gulden, Jr. et al as applied to claims 1 and 2 above, and further in view of Vallomy (US 4,564,388), Hyde et al (US 3,772,000) and Engledow (US 4,010,026).

Vallomy '504 in view of JP '248, Gulden, Jr. et al, Vallomy '388, Hyde et al and Engledow is applied as discussed in the office action mailed 11/18/2008.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vallomy '504 in view of JP '248 and Gulden, Jr. et al as applied to claims 1 and 2 above, and further in view of Wunsche (US 4,679,773).

Vallomy '504 in view of JP '248, Gulden, Jr. et al and Wunsche is applied as discussed in the office action mailed 11/18/2008.

#### ***Allowable Subject Matter***

Claims 3, 7 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: regarding Claims 3, 7 and 19, both Vallomy '504 and JP '248 teach continuous tapping [Claim 1] without interruptions.

### ***Response to Arguments***

Applicant's arguments filed 2/13/2009 have been fully considered but they are not persuasive for Claim 1. Applicant argues that neither Vallomy '504 nor JP '248 disclose or suggest regulating the discharge delivery of the scrap into the furnace to maintain the temperature of the liquid bath around a pre-determined value. JP '248 teaches controlling the metal temperature based on the gravimetry means 5 and 7 for the furnace and the feeder, respectively, and the electrode [0010 and 0013]. The molten metal temperature is in agreement with a preset value [0013]. Regarding whether JP '248 discloses or suggests the feature of a preset value of temperature of the liquid bath to be maintained, this is addressed in the aforementioned sentence. Regarding Claims 2, 4 and 5, applicant does not specifically address these claims.

Applicant's arguments with respect to Claims 3 and 7 have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMA M. MCGUTHRY-BANKS whose telephone number is (571)272-2744. The examiner can normally be reached on M-F 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Wyszomierski/  
Primary Examiner  
Art Unit 1793

/T. M. M./  
Examiner, Art Unit 1793  
5 May 2009